

was then made for more of the poisonous fungus to Mr. G. W. Lawrence, of Fayetteville, N. C., and from the material sent by him the species was recognized as *Clathrus columnatus* Bosc. As the fungus is common to the Southern States, it would be interesting to know whether the hogs of other States possess the same fondness for this most extraordinary diet.

In this connection I should like to call attention to an admirable memoir on Phalloideæ¹ by Dr. Ed. Fischer of Berne. He considers *C. columnatus* Bosc. to be merely a variety of *C. cancellatus* Tournef. He also places *C. triscapus* Mont., which occurs in Florida, under the same species as var. *Brasiliensis*. *Simblum rubescens* Gerard together with var. *Kansensis* Cragin are merged in *Simblum sphærocephalum* Schlecht. *Phallus duplicatus* Bosc, *P. Dæmonum* (Rumpf), *P. collaris* Cragin and *Hymenophallus togatus* are referred to *Dictyophora phalloides* Desvaux, thus bringing all the indusiate forms of the United States under one species. The synonymy of our species of *Mutinus* is still perplexing, for the original descriptions and type specimens are not sufficient to show clearly the limits of several species.—W. G. FARLOW, Cambridge, Mass.

Chlorophyll in the embryo.—The GAZETTE has mentioned Dr. Campbell's note on chlorophyll in the embryo of *Celastrus*. Other examples may be found in *Tilia Americana* and *Ipomœa purpurea*. I have given some attention to the latter during the last five months. In its earliest stages the embryo is white. The chlorophyll appears as soon as the first traces of the cotyledons can be recognized by the eye in the cross-section of the seed. It is abundant in the cotyledons while the pod is developing. When the fruit is ripe and the pod begins to dry then the color diminishes and becomes a light yellow in the shrunken seed which drops to the ground at the time of dehiscence. If the pods and their contents be buried in earth while yet green and immature they promptly send up thrifty plants which come to flower and produce fertile seeds, thus shortening the life-circle of the plant and giving it no "resting stage." I learn that some gardeners have taken advantage of this fact in burying "green peas" in the pod instead of the seed of a previous year, thus obtaining a more speedy result. I would be glad to know if observers in more southern localities find that *Ipomœa*, when favorably situated, produces its new seedlings by a natural or accidental burial of the pod without its arrival at maturity.—C. B. ATWELL, Evanston, Ill.

EDITORIAL.

PROBABLY no more earnest and critical notice of the BOTANICAL GAZETTE has appeared in any extra-English publication than that in a late number of *Flora* by its able and scholarly editor, Prof. Dr. Goebel. He gives as his reason for writing the notice that the GAZETTE "affords an

¹Untersuchungen zur vergleichenden Entwicklungsgeschichte und Systematik der Phalloideen, *Denkschrift Schweiz. Naturf. Gesell.* Band 32. I.

insight into the botanical activity of America," and from this standpoint he has indicated a foreign estimate of American botany. As our readers will doubtless be interested in the opinion of so eminent a writer, we reproduce in English form part of the review; it seems to us to contain important suggestions. "It lies in the nature of things," Dr. Goebel says, "that up to the present time only a little, comparatively, has been known in Germany of the scientific life of the United States; it has in fact but just begun to bloom, and is of recent date as contrasted with that of the old world. The works of Asa Gray, Engelmann and others are quite generally known, in connection with the admirable reports of the Geological Surveys, but much less is known of the Universities and their Institutes, which are constantly becoming more numerous through magnificent bequests and endowments. There can be no doubt that the literary productions in the domain of botany will soon rise into importance in a land that not only itself possesses a highly interesting flora, but also has the enviable advantage of lying very near tropical regions, so that one may reach Mexico from New York, for example, in less than a week." It is evident that the German botanical mind is in a receptive condition toward American botany, and that it already recognizes superior natural and acquired advantages for the study on this side the water. The reviewer furthermore gives us credit for "a strong endeavor to take advantage of the experience of European botanical institutes." Passing to a consideration of the work being accomplished, "one generally misses," he says, using the GAZETTE for 1888 as the text for this comment, "the connection with the literature of the subject treated (*e. g.*, in the articles of Newcombe and Evans), although the treatment of the literature as known in European botanical publications often leaves much to be desired." The two articles cited emanated from two of our prominent botanical laboratories, and between them contain but one reference to literature, although treating of interesting subjects on which much work of the same or similar nature must have been done. If, however, German authors themselves do not do their full duty in the matter of citations, in the opinion of this able critic, it is no wonder that so great a defect in American writers made it easy and natural for him to pass on without specially commending their productions. The GAZETTE, he says, "will be the more valuable for European readers the more it succeeds in giving the most complete survey possible of all botanical publications of America. Especially to be desired also would be yearly summaries of all American publications in the domain of botany." This suggestion is manifestly outside the sphere and the present ability of the GAZETTE, but it would be a most admirable and suitable work to be taken up by the National Herbarium. No annual resumé of botanical activity in America, after the manner of the excellent year-books of Germany, *e. g.*, Just's *Jahresbericht*, has ever been attempted, but there can be only one opinion of its great service to both American and foreign investigators.